## ZIEGLER CHEMICAL & MINERAL CORP. LITTLE BONANZA OPERATIONS STAR ROUTE, VERNAL, UTAH 84078

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October 23, 2003

Mr. James F. Kohler Chief, Solid Minerals Branch U.S. Department of the Interior Bureau of Land Management P.O. Box 45155 Salt Lake City, Utah 84145-0155

RE: Exploration Plan: Independent Vein, U-0126939

Dear Mr. Kohler,

In order to develop a supply of Gilsonite of the appropriate quality and quantity requested by our customers Ziegler Chemical & Mineral Corporation (ZCMC) proposes to exercise its leaseholder's rights to explore for Gilsonite reserves on Lease No. U-0126939. This lease is located in Section 8, Township 9 South, Range 24 East, N½SW¼, NW¼SE¼, S½SE¼, S½SW¼, and Section 9, Township 9 South, Range 24 East, SW¼ SW ¼ . This lease contains 320 acres in Uintah County, Utah. This lease falls within the Book Cliffs Resource Management Plan area. ZCMC feels that this Exploration Plan is consistent with land uses described within the Book Cliffs Resource Management Plan. ZCMC will commence operations immediately upon approval of this Exploration Plan. (See attachment—Map #1)

<u>Time Domain EM Survey.</u> In order to establish a better feel for the vein trend across this lease, initial exploration will begin with a Time Domain EM survey of the lease area. ZCMC will conduct the Time Domain survey at no less than 100 foot nor greater than 500 foot intervals. (See attachment—Map #2) Beginning at vein outcroppings located near the boundary of Sections 8 and 9 the survey will run in a northwest by southeastern direction following indications of the vein. The Time Domain array will be positioned perpendicular to the vein outcroppings.

The equipment used for this survey is hand held, and the array pattern is done on foot. Vehicle access will be by existing two track vehicle travel ways. The impact to the environment during this stage of the exploration will be at a minimum. Time frame for completing this phase is expected to be approximately two weeks.

Access. In order to access this lease for exploratory drilling a road will need to be constructed. (Refer to attachment—Map #3) This roadway will enter the lease from adjoining lands administered by the State of Utah where Ziegler Chemical had previously

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developed an access way. Construction will begin after the Time Domain EM survey has been completed. The access road will conform to standards as outlined in the Bureau of Land Management and Forest Service publication: <u>Surface Operating Standards for oil and Gas Exploration and Development (1989)</u>. This road will be constructed and upgraded to meet the needs of anticipated traffic and all-weather road standards.

Initial Drill Pattern. In order to determine if this vein contains a commercially viable supply of Gilsonite, drilling of the vein must be done. After the vein trend has been identified ZCMC will then cross drill the vein. This will help to determine the width of the ore body. Where the terrain will allow, drilling will be done at a 45° downward angle perpendicular to and transecting the vein. This initial cross drilling will be done at 500 foot intervals. The equipment will be set back from the vein 200 to 400 feet in order to transect the vein at a similar depth. This phase of the investigation may include drilling as many as 12 holes.

The equipment will consist of a small truck or trailer mounted drill capable of boring a 3" to 4" hole. A portable air compressor, also trailer mounted, will be used in the drilling process. If it becomes necessary fresh water and bentonite clay will be used to help with the drilling process. (See attachment #4—Picture of equipment type to be used.)

No hazardous materials would be used during the exploration of this lease other than gasoline, motor oil, battery acid, and antifreeze in vehicles; and grease for lubrication of equipment. All of these substances would be handled in compliance with existing regulations. Less than 10,000 pounds of any chemical(s) from the Environmental Protection Agency's (EPA's) Consolidation List of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1996 and less than the Threshold Planning Quantity (TPQ) of any extremely hazardous substance(s), as defined in 40 C.F.R. 355, would be used, produced, transported, stored, or disposed of annually in association with the Proposed Action.

<u>Trenching.</u> After the initial drilling has been completed, ZCMC will trench across the vein at 50 foot intervals down to bedrock with a backhoe where the drilling indicates the vein is the widest at depth. The trenching will provide exact positioning of the vein. This will be done for that portion of the vein that indicates, from the initial drilling, that it would sustain a continued mining program.

<u>Investigative Drill Pattern.</u> To complete the investigative survey of the Independent vein, ZCMC will cross-drill the vein at approximately 45° angles in the areas of the lease that submit the most promising results from the initial drilling. During this phase we will drill angle holes 50 feet apart, beginning with a set back of 200 feet and as far as 400 feet from the vein exposure.

Sincerely,

Stan Wagner

Mine Superintendent

**SJW** 

Enclosures: 1 map showing lease area, 1 map depicting Time Domain EM array pattern, 1 map showing proposed access roadway, 1 picture of the type of drilling equipment to be used.

cc: Gordon Ziegler Jr., President, Ziegler Chemical & Mineral Corp.
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